Claims

[c1] What is claimed is:

1. A multi-frequency monopole antenna for a wireless device, the antenna comprising:

a rectangular first conductor plate having a width between a first edge and a second edge thereof and a height, the first conductor plate producing a first resonance band corresponding to the length from the first edge to the second edge, and producing a second resonance band corresponding to the length from the first edge to the second edge and back to the first edge; and

a second conductor plate connected to the first edge of the first conductor plate for feeding signals of the first resonance band and the second resonance band.

[c2] 2. The antenna of claim 1, wherein the antenna produces resonance at a first frequency in the first resonance band, the antenna produces resonance at a second frequency in the first resonance band, the antenna produces resonance at a third frequency in the second resonance band.

[c3] 3. A multi-frequency monopole antenna for a wireless device, the antenna comprising a conductor plate having a first plate portion and a second plate portion, the first plate portion having a width between a first edge and a second edge thereof and a height for producing a first resonance band and a second resonance band, the second plate portion being connected to the first edge of the first plate portion for feeding signals of the first resonance band and the second resonance band, the first plate portion producing the first resonance band corresponding to the length from the first edge to the second edge thereof, and producing the second resonance band corresponding to the length from the first edge to the second edge and back to the first edge.

[c4] 4. The antenna of claim 3 wherein the second plate portion is L-shaped.

[c5] 5.The antenna of claim 3 wherein the first plate portion is rectangular.

[c6] 6. The antenna of claim 3, wherein the antenna produces resonance at a first frequency in the first resonance band, the antenna produces resonance at a second frequency in the first resonance band, the antenna produces resonance

at a third frequency in the second resonance band.

[c7] 7. A multi-frequency monopole antenna for a wireless device, the antenna comprising a conductor plate having a first plate portion and a second plate portion, the first plate portion being retangular with a width between a first edge and a second edge thereof and a height for producing resonance at a first frequency, a second frequency, and a third frequency, the second plate portion being connected to the first edge of the first plate portion for feeding signals of the first frequency, the second frequency, and the third frequency, the first plate portion producing resonance at the first frequency corresponding to a length from the first edge to the second edge thereof, the first plate portion producing resonance at the second frequency corresponding to a length from the first edge to the second edge thereof, and the first plate portion producing resonance at the third frequency corresponding to a length from the first edge to the second edge and back to the first edge.

[c8] 8. The antenna of claim 5 wherein the conductor is L-shaped.